EPI-LOG

Communicable Disease and Epidemiology News
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Public Health
Seattle & King County
HEALTHY PEOPLE. HEALTHY COMMUNITIES.
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Mysterious Mumps

On January 4, a school nurse reported a 14 year-old student with mumps. The student had had fever, sore throat, and bilateral parotitis for approximately two weeks. Although a clinical diagnosis of mumps was made by the student's health care provider, confirmatory laboratory testing had not been ordered. Subsequent serologic testing for mumps antibody at the request of Public Health revealed a high level of mumps IgM antibody, indicating acute infection. Since the case had a documented history of 2 doses of MMR vaccine, the positive IgM result was felt to be a possible false positive. However, our investigation revealed that the case had had contact with two cousins who had also had parotitis 2 and 3 weeks earlier. One of the cousins had a history of 3 MMR vaccinations, and had been tested for mumps but was IgM-negative and IgG-positive; the other cousin was not tested for mumps. All 3 children had received their MMR immunizations in the U.S., and none of the cousins had recently traveled.

Mumps can be confirmed with a single positive IgM result in the presence of compatible clinical symptoms (two or more days of parotid swelling). **A single serum IgG test alone for mumps antibody is not adequate for diagnosis**; two specimens obtained at least 2 weeks apart and run simultaneously with a fourfold rise in IgG titer are necessary for confirmation by IgG. The mumps virus can also be cultured from urine (and/or throat swabs) collected within 2 weeks of onset of parotid swelling. Viral culture specimens should be sent to either the PHSKC or Washington State DOH laboratories; commercial laboratories normally do not attempt to culture mumps virus. Bacterial cultures may identify other causes of parotid swelling when mumps virus is not present. Patient interviews should include questions about foreign travel and immunization history as well as exposure to other persons known to have similar symptoms in the 2-3 weeks before parotitis onset.

Although we were not able to definitively document mumps for all three of these children, we are not aware of alternative etiologies that would produce sequential infections manifested by parotitis. For diseases with high levels of immunization coverage in the population it is predictable that an increasing proportion of cases will be among vaccinated persons. Although the protective efficacy of mumps vaccine based on clinical trials is reported to be 95-96%, studies in outbreak situations suggest its effectiveness in field use may be lower. Parotitis has multiple etiologies including mumps virus. The best means to minimize diagnostic confusion and prevent additional mumps cases is to **always obtain a serum specimen for mumps IgM & IgG serology and a sterile urine for mumps culture when evaluating persons with acute parotitis,** regardless of immunization history.

Community Immunization Survey

The Immunization Program at Public Health – Seattle & King County is currently conducting an immunization survey in Central and South Seattle and in areas of Burien, Sea Tac and Des Moines that border South Seattle. This survey supplements the National Immunization Survey, conducted by the Centers for Disease Control and Prevention, and will allow us to examine immunization rates for these lower income areas within King County.

In the first phase of the survey, we identified via random digit dialing a sample of households in these areas with a child 19 to 35 months of age. We are now contacting these families with a survey that asks several questions about immunizations, including the types of immunization information desired by parents, current sources of information about immunizations, insurance coverage for immunizations, and parent's acceptance of multiple simultaneous immunizations.

So that we can accurately assess the immunization status of the children, we are also asking parents to give us vaccine administration dates from their child's immunization record, and asking for permission to contact the child's immunization provider. **If you are identified as the immunization provider for one of these children, you will receive a request from us for the child's immunization history**. In order for us to get an accurate estimate of immunization coverage in these areas, it is crucial that we obtain complete immunization histories for all the children in our sample. Please assist us by sending or faxing requested records to us in a timely manner.

While King County has a very good over-all immunization rate of 87% for 19-35 month-olds, it is unknown if some groups within the population have lower immunization rates. The results of the survey will be used to identify any under - vaccinated populations in lower income areas of King County. This information will be used to target appropriate public health interventions designed to increase immunization rates among susceptible children. Data from our survey will presented in future issues of the Epi-Log.

Cougar Strikes Back!!

A 44 year-old King County resident presented to his physician with a two-week history of fever and muscle aches. Preliminary blood work revealed a normal WBC with 12% eosinophils; on a subsequent CBC the patient's WBC rose to 17,300/mm3 with 55% eosinophils. Further interviews revealed a hobby of backcountry hunting, with the killing of a wild cougar in December 1999 in Idaho. In January, the patient had prepared and consumed homemade cougar jerky. Serology for antibody to Trichinella was performed; IgG antibody was positive at 5.21 units, with >1 unit indicating a positive specimen. The patient was diagnosed with trichinosis. Periorbital and facial edema occur during the tissue invasion stage of trichinosis but were not present in this case.

The jerky was prepared with the previously-frozen cougar meat by slicing it, soaking it overnight in a marinade, then smoking it in a home smoker, which heated the meat to approximately 150º. The patient had eaten it on two weekends about two weeks prior to onset of illness. Two other individuals had also consumed very small amounts of

the jerky but did not develop symptoms.

Since the implementation of modern swine-raising techniques the incidence of trichinosis has decreased to an average of less than 30 reported cases per year. Recent cases are increasingly associated with consumption of wild game. This is the second report of trichinosis caused by consuming cougar jerky. In 1995, ten cases of trichinosis occurred in Idaho after consuming homemade jerky produced after a cougar hunt. Although freezing kills many strains of Trichinella, that jerky was also made with meat that had been previously frozen. DNA analysis of the meat involved in the 1995 outbreak indicated the strains involved were freeze-resistant strains previously unseen in Idaho. It would appear that freeze-resistant strains of Trichinella may be becoming more common in Idaho wildlife.

Important Reminder: Free Hepatitis A Immunizations Available for Low Income & Uninsured High-Risk Adults

Health care providers are encouraged to routinely recommend immunization against hepatitis A for adults at high risk. Most health plans will cover hepatitis A immunizations for high-risk adults. In addition, free or low-cost **Hepatitis A vaccine** is available for all low-income and uninsured high-risk adults at all Public Health immunization clinics in King County.

Adults at high-risk for hepatitis A include:

- men who have sex with men
- injection drug users
- homeless persons
- persons with chronic liver disease (including chronic carriers of hepatitis B and C)

For immunization referrals, high-risk clients can call the **HIV/STD Hotline at (206) 205-7837**. The Hotline is staffed M-F, 8 a.m.-5 p.m. The Communicable Disease Epidemiology & Immunization Program telephone hotline at **(206) 296-4949** also has recorded information that can help clients find the nearest immunization site.

Increased Access to Hepatitis A and B Vaccine for Gay and Bisexual Men

Under a new pilot program, limited quantities of hepatitis A and B vaccine are available free or at low cost for low-income and uninsured men who have sex with men (MSM). The free vaccine for MSM can be accessed through Public Health's Hepatitis Initiative at eight Public Health and community clinics ***in Seattle only***.

In King County, rates of hepatitis A and B are substantially higher among gay and bisexual men than the general public, yet a majority of these men are not fully immunized against these preventable viral infections. Health care providers are encouraged to routinely recommend immunization against hepatitis A and B for all persons with risk factors for these diseases, including gay and bisexual men. Recent Public Health surveys indicate that MSM are three or four times more likely to be immunized when they've received an immunization recommendation from their primary provider. Most health plans will cover hepatitis A and B immunizations for high-risk adults, including MSM. If you would like to receive a guide on how to recover immunization costs or would like more information on the Hepatitis Initiative, contact Drew Emery at (206) 296-4774.

For information on sites offering viral hepatitis immunizations, STD screening and HIV counseling and testing, high-risk clients should be referred to the **HIV/STD Hotline** at **(206) 205-7837.** The Hotline is staffed M-F, 8 a.m.-5 p.m. The Communicable Disease Epidemiology & Immunization Program telephone hotline at **(206) 296-4949** also has recorded information that can help clients find the nearest immunization site.

For more information about the Hepatitis Initiative Program, call (206) 296-4774 or go to: www.metrokc.gov/health/

DISEASE REPORTING:(area code 206)
AIDS……..296-4645
Communicable Disease……...296-4774
STDs……731-3954
Tuberculosis……...731-4579
24-hr Report Line……...296-4782
HOTLINE:
CD Hotline……..…296-4949
HIV/STD Hotline……...205-STDS

http://www.metrokc.gov/health/

REPORTED CASES OF SELECTED DISEASES
SEATTLE-KING COUNTY 2000

	CASES REPORTED IN FEBRUARY		CASES REPORTED THROUGH FEBRUARY	
	2000	1999	2000	1999
VACCINE-PREVENTABLE DISEASES				
Mumps	1	0	2	0
Measles	1	0	1	0
Pertussis	14	87	28	104
Rubella	0	0	0	2
SEXUALLY TRANSMITTED DISEASES				
Syphilis	2	6	7	12
Gonorrhea	67	69	162	164
Chlamydial infections	327	278	707	589
Herpes, genital	61	49	173	115
Pelvic Inflammatory Disease	20	21	46	43
Syphilis, late	2	3	2	5
ENTERIC DISEASES				
Giardiasis	33	12	48	28
Salmonellosis	25	12	47	27
Shigellosis	38	3	95	7
Campylobacteriosis	18	14	40	31
E.coli O157:H7	0	2	0	5
HEPATITIS				
Hepatitis A	16	7	25	16
Hepatitis B	4	3	8	5
Hepatitis C/non-A, non-B	0	0	0	1
AIDS	10	17	18	29
TUBERCULOSIS	8	10	16	17
MENINGITIS/INVASIVE DISEASE				
Haemophilus influenzae	0	0	1	0
Meningococcal disease	2	1	5	5